2010/016

Application No.: 10/526,170

Docket No.: JCLA12206

REMARKS

Present Status of the Application

The Office Action rejected claims 1-7 under 35 U.S.C. 112, 2nd paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Office Action rejected claims 1-5, and 7 under 35 U.S.C. 102(b) as being anticipated by Fujinaka (WO02/10602).

The Office Action further rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over Fujinaka in view of Tanaka (US Patent 5,683,183).

Claims 1-7 have been amended. Support for the amendments can be found from the specification and the drawings. There is no new matter entered thereby.

Discussion of the claim rejection under 35 USC 112

The Office Action rejected claims 1-7 under 35 U.S.C. 112, 2nd paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In rejecting claims 1-7, the Examiner required clarification of the meaning of the term "welding", and pointed out "it is unclear how the term is applied to situations where two dissimilar materials.

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In response thereto, Applicants submit that the term "welding" has been well defined in the specification, i.e. paragraph [0014], as "The welding described above may be adopted to fix the bearing sleeve in the resin housing. In this case, if the bearing sleeve is made of sintered metal, melting resin in the junction surface of the housing gets into internal pores through surface pores (a part formed by internal pores of porous texture of sintered metal opening to the surface) of the junction surface of the bearing sleeve to solidify. Solidified parts inside the internal pores bring the bearing sleeve into intimate contact with the housing due to a kind of anchor effects, so that the bearing sleeve and the housing do not relatively get out of positions, and it is possible to obtain a

Further, with respect to claim 7, the Examiner believes it is unclear what the meaning of the phrase "is adopted as" is.

secured fixation condition". Applicants submit that the definition of the term "welding" is clear

In response thereto, Applicants have amended claim 7, and submit that claim 7 is now in allowable form.

Discussion of the claim rejection under 35 USC 102

and definite. The rejections thereto are solicited to be withdrawn.

The Office Action rejected claims 1-5, and 7 under 35 U.S.C. 102(b) as being anticipated by Fujinaka.

Applicants respectfully traverse the above rejections and submit that claims 1-5, and 7 are neither taught, disclosed, nor suggested by Fujinaka, or any of the other cited references, taken alone or in combination, and thus should be allowed.

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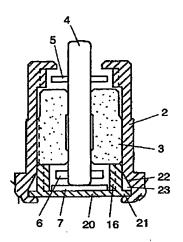
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With respect to claim 1, as originally filed, recites the limitation of "A dynamic bearing device comprising ... a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap" which is neither taught, disclosed, nor suggested by Fujinaka.

In rejecting claims 1-5, and 7, the Examiner relies generally item 6 of Fujinaka for reading on both the flange portion and the thrust bearing portion.





However, as required by claim 1, "a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap". In this concern,

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Applicants submit that it can be seen from Fig. 6, Fujinaka teaches the item 6 is supported in a non-contact manner from the thrust member 7 by an end of the shaft 4, rather than by an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap.

In other words, Fujinaka fails to teach "an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap" supports "said flange portion in a thrust direction in a non-contact manner".

Claim 2 recites: "a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap";

Claim 3 recites: "a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap";

Claim 4 recites: "a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap"; and

Claim 5 recites: "a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of

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said lubricating oil generated in a thrust bearing gap".

All the above limitations recited in claims 2-5 are not disclosed by Fujinaka for similar

reason as discussed with respect to the allowability of claim 1. As such, claims 2-5 are also

submitted to be allowable.

Further, Fujinaka discloses a bearing device wherein the lower end of the shaft 4 is

supported in contact manner by the thrust plate 7 and none of the inner circumferential surface of

the bearing sleeve 3 and the outer circumferential surface of the shaft 4 are provided dynamic

pressure generating grooves.

In other words, Fujinaka dose not disclose a dynamic bearing device. Meanwhile,

although Tanaka discloses a dynamic bearing device, the bearing device is not provided with a

flange portion and a seal member.

Moreover, since the bearing sleeve made of sintered metal has a number of pores opened

to surfaces, the resin in the joining area of the housing that is melted during welding is

impregnated into pores of the bearing sleeve to become solidified, thereby the bearing sleeve of

the present invention is strongly fixed to the housing.

However, this advantage can not be achieved by Fujinaka, or any of the other cited

references, taken alone or in combination.

As such, Fujinaka fails to teach each and every element of claim 1, claim 1 is thus

submitted to be allowable over Fujinaka.

Claim 7 depends upon claims 2-5, and thus should also be allowable.

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Discussion of the claim rejection under 35 USC 103

The Office Action further rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over Fujinaka in view of Tanaka.

In response thereto, Applicants submit that claim 6 recites the limitation of "a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap".

For at least similar reasons discussed above, this limitation is not disclosed by Fujinaka, and thus Fujinaka fails to teach each and every limitation of claim 6.

As such, the present invention, as set forth in claim 6, is submitted to be allowable.

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CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-7 of the present application patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted, J.C. PATENTS

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